System Configuration Team Meeting Notes

September 21, 2006

1. Greetings and Introductions.

The September 21 SCT meeting was chaired by Bill Hevlin. The following is a summary – not a verbatim transcript – of the topics discussed and decisions made at this meeting. Anyone with questions or comments about these notes should contact Kathy Ceballos at 503-230-5420.

2. Little Goose Spillway Surface Passage Update.

Sean Milligan of the Corps of Engineers led this presentation, titled "Little Goose Surface Bypass." He detailed the following alternatives under investigation to provide surface passage at the spillway:

- Little Goose RSW alternative – profile view, plan view (diagrams)
- Possible improvements to the RSW alternative include: Adjustable crest, minimize projection into forebay; reduce size and cost; reduce dive time, improve hydraulic attraction; reduce predator holding area on lee side; do away with side wall expansion which creates shock waves; better transition to existing ogee.
- Little Goose "candy cane" ASW2 alternative – this development started for Lo Mo, adjustable crest elevation to allow lower or larger discharge rate, fixed piers, but all other pieces come out of water; pier extensions even longer than for RSW; transition still upstream of the spillway gate.
- Comparison of the "Candy cane" ASW vs. RSW approach velocity (graph), approach velocity contours (graphs), approach velocity gradient (graphs)
- Comparison of the Little Goose ASW2 vs. RSW: fixed crest vs. adjustable crest; rotate down into forebay vs. lift out of water; pier extensions rotate with crest vs. fixed; ASW2 has even longer pier extensions; different shape of zone of influence; capture velocity occurs closer to end of piers for the RSW; more gradual transition to the crest for the RSW.
- Goals for the new alternative - ASW3 – are to create approach hydraulics more like RSW; improve chute hydraulic conditions; smaller, more compact structure; potentially reduced cost and schedule; safety – less deep diving during construction/inspection; reduced projection into forebay; maintain limited adjustability.
- Modified ASW (ASW3) – profile (diagram) and plan (diagram)

- Comparison graphs of ASW3 vs, RSW – approach velocity and approach velocity gradient, and photo looking down the chute
- Little Goose RSW vs. ASW3 comparison: fixed crest vs. adjustable crest; rotate down into water vs. lift out of water; pier extensions rotate with crest vs. fixed; ASW3 has much shorter pier extensions; transition to existing spillway upstream of the spillway gate vs. downstream of the gate; ASW3 has more compact structure, with corbel supports, potentially cheaper/shorter design/construction schedule, greater construction/inspection safety – less deep diving; nearly identical approach hydraulics; ASW3 has better chute hydraulics.
- Little Goose: other issues – bay selection (currently assuming bay 1, but there are several factors to consider), spillway deflector design, spill pattern development; schedule - agency meeting at the ENSR model lab on October 18; surface bypass structure will be in place at Little Goose by spring 2009.
    - •Little Goose points of contact: Jack Sands, project manager (509-527-7287, jack.d.sands@usace.army.mil, Sean Milligan, 509-527-7535, sean.c.milligan@usace.army.mil).

Mulligan noted that another advantage to the ASW3 approach is the fact that it could be constructed in pieces, so some components could be installed while others are being fabricated. That offers advantages over the RSW construction process, in which a single large structure is constructed, and then floated upriver, he explained.

When do you need a decision on the ASW/RSW question? Hevlin asked. We're trying to develop more detailed cost information, Jack Sands replied – we're looking at the end of October as the break point where we could still go either way – with an ASW or an RSW. We'll have more detailed cost information for you soon, and if you could make a recommendation at the next SCT meeting, that would be very useful. One of the biggest issues is the feasibility of having project personnel actually remove the structure if a flood event occurs, Sands added.

3. Status of the Lower Monumental RSW and the McNary TSW.

A few days ago, we had a partnering meeting on the Lower Monumental RSW, at which the contractor told us he was 30 days behind schedule, said Randy Chong. We have asked him to submit a revised schedule, which he has done, but I wanted to let you know as soon as we knew that he is 30 days behind schedule. We're holding weekly status meetings, he said, and if their isn't sufficient progress we will start making recommendations to the contractor as to how to get back on schedule, Chong said. Fabrication is now expected to be complete by February 7, according to the latest estimate from the contractor. The Corps has the authority to order the contractor to work double shifts to catch up if the situation doesn't improve? Jim Ruff asked. Yes – we're going to be doing everything we can to make sure the contractor adheres to the schedule, Chong replied.

With respect to the McNary TSW, we opened that for bids on September 14,

Chong said; we have only gotten one bid so far, which was substantially higher than the government estimate. We have switched over from a competitive bid to a negotiated contracting process, he said; at the current bid price, I do not have the money in Walla Walla District to award that contract. Hopefully the negotiations can be successfully concluded, and we will be able to get the TSW in place by next spring. We will have money once the new fiscal year begins in October, he added, but we were hoping to get the contract started as soon as possible.

4. Adult PIT Detection at The Dalles and John Day.

The discussion then moved on to line-items 41 and 49, the adult PIT installations at The Dalles and John Day. Jason Sweet suggested that, rather than doing both ladders at one project per year, it might make more sense to do one ladder at each project per year – one ladder each at The Dalles and John Day in 2007 and 2008. That works from our end, he said, and would avoid us having to take both ladders at a given project out of service at the same time. After a brief discussion, no SCT objections were raised to this proposal, starting with the John Day south ladder and one of the ladders at The Dalles in 2007, followed by John Day north and the other The Dalles ladder in 2008/'09.

5. FY'07 CRFM Program Prioritization Continued.

Line Item 57 – Delayed Mortality of Juvenile Salmon:

Next, the SCT discussed the proposals that would be funded under line-item 57, Delayed Mortality of Juvenile Salmon. Mark Smith distributed a handout describing the five major components of the 2007 delayed mortality project, including:

1. Evaluation of factors contributing to differences in post-system survival ($3.52 million)
2. System configuration study to determine the strategies to provide for the most productive returns for Snake River fall chinook (cost-shared with O&M; CG share would be $1.9 million)
3. Monitoring and estimating differential delayed mortality of fish transported vs. those migrating in-river (cost-shared with O&M, CG cost $488,000).
4. Synthesis report of research conducted under the Delayed Mortality Project ($320,000)
5. Support of Delayed Mortality Project which includes AFEP-related support contracts, program manager and in-house labor and support ($880,000)

So a take-home message is that there is a significant cost increase for this line-item, said Smith. I should say, said Ruff – it's up to $7.4 million. That's up from $3.2 million in FY'06, Kranda noted. One difference is we're asking for a control group of 400,000 tagged fall chinook, up from 160,000 last year, Marvin Shutters noted.

Are there other studies that should be considered under the delayed mortality line-item? Hevlin asked. B8 on the agenda is one – the extra mortality study, Ruff said. It's not a done deal – there is a draft recommendation, but it has been significantly cut back, he said; the draft recommendation is $980,000, down from the $1.3 million requested, which will reduce the number of fish tagged. If we're considering a suite of delayed mortality projects, it would be useful to consider the full suite, so we know what's happening in the river, Ruff added. NOAA prefers that B8 not be considered for CRFM funding, Hevlin said.

Ruff went on to say that, in his view, component 2 of line-item 57 should be included under line-item 2. Do we want to combine the fall chinook life-history studies with the suite of delayed mortality studies, or keep them separate? Hevlin asked. Keep them separate, was the consensus.

After a few minutes of further discussion, no other studies or costs were added to the delayed mortality line-item. I don't know that we'll have the funding to do all of this, Hevlin said, but at least we now know what's in Line item 57, so that the rest of the agencies can score it – recall that 5 of the 9 agencies have yet to give it a score, because they didn't know what was in it. Ultimately, #57 was not re-scored at today's meeting. It was agreed that the Corps will provide a package of the eight proposals with the SRWG research summary rankings for each of the eight. I will provide that in an email, said Shutters.

Line Items with increased costs since the last SCT meeting:

John Kranda noted that a number of the CRFM research line-items have increased in cost since the last SCT meeting, including Lower Monumental RSW biological studies (line-item 4), line-item 5, the PIT-tag recovery line-item, the estuary study (line-item 36). The net result is that these increases put the total cost of the program, through line 57, at about $90 million. We're likely to be in the $75-80 million range after savings and slippage, Kranda said; that would put the cut-off point at line-item 55. In other words, Kranda said, we have more work to do.

Discussion of potential add-ons suggested at the last SCT meeting:

The discussion turned to the item B1 on the agenda, the determination of overwintering location for fall chinook – the otolith study. NOAA Fisheries and Idaho see this study as important, Hevlin said. Ruff noted that the MSRT considered an otolith microchemistry study from the Fish and Wildlife Service that would have gotten at this information, but the MSRT did not rank it high enough for funding. However, there is a study out there if we want to fund it, Ruff said. My understanding is that the study is a joint University of Idaho/NMFS Science Center study, and would need about $350,000 in funding, Hevlin said. It was noted that Oregon supports this study as well.

The group discussed the need for better coordination between the Council's Fish and Wildlife Program and the CRFM program; there was general agreement that, given the limited funding available for both programs, a greater level of coordination is

needed. There is certainly a need for more clarity as to who funds what, Ruff agreed.

Next, the group discussed the three kelt reconditioning proposals (B3 & B10 on the agenda); there was general agreement that these proposals should be considered together. There was also agreement that the study of rounding corners in the fish ladders (B4 on the agenda), to improve lamprey passage should be a part of line-item 35. With respect to increased PIT-tagging of wild Snake River steelhead (B5 on the agenda), Hevlin said, I don't see where this can be fit into CRFM at this time; it should be included in a particular study. Russ Kiefer argued that better in-river survival rates would result if wild steelhead were tagged upstream of all dams – in other words, fish that are tagged at Lower Granite do not represent fish that pass directly through the RSW at Granite.

On the John Day general model (B6 on the agenda), the Corps said this project is going forward – it is in the John Day COP line-item. Moving on to new marking and monitoring technologies, Ruff said there are a number of tagging studies that are being considered on the spreadsheet, including the JSAT and PIT tag development/R&D line-items. We ought to be looking at all of the tagging studies together, said Ruff. There is a meeting on that very topic next week, observed one participant. Finally, the group discussed Gary Fredrick's' suggestion of an evaluation of juvenile spring chinook and steelhead survival through the John Day pool (B11 on the agenda) with an emphasis on identifying sections with low survival. Fredricks described his reasons for suggesting this study – essentially, anomalously low survival through this particular reach – and suggested methodology. It would be a value-added study, he said – since we already have the fish tagged, all we would need to do is set out the detection arrays and about three transects. After a brief discussion, Hevlin suggested that the discussion of this proposal be transferred to FFDRWG, where it could be added on to an existing study.

4. FFDRWG and SRWG Updates.

This agenda item was not discussed today.

5. Next SCT Meeting Date.

The next meeting of the System Configuration Team was set for Thursday, October 19, and be held at NMFS in Portland. Meeting summary prepared by Jeff Kuechle, BPA contractor.